



THE SPARK
GAP

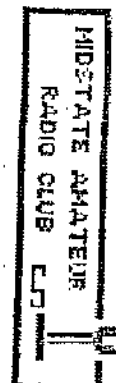
PRES. - JOAN KEMP ND3ON VICE-PRES. - JOE VERGARA KA2PA EC-DAVE WENDT KA9OOH
SEC. - TREAS. LEROI CRUM W4LNN ACTIVITIES - KEEMAN HARDISTY N0HC

What's in a logo?

The five logos on this page demonstrate the evolution of the Spark gap through the ten years of the Mid-State Amateur Radio Club. The first logo (upper left) was used in the first newsletter by Brad Stone NB9M in 1985. The second logo (upper right) was used by Dave Wendt KA9OOH in the 1986/87 newsletter.

In 1988 the newsletter was named "The Spark-Gap" and used the logo at the right. KA9OOH was the editor. New graphics were added in 1989 (left).

In March of 1993 the Spark-Gap sported a new logo designed by Jeff Sloman N1EWO (below). This design has also been used on letterheads, cups, etc. We hope this will become a symbol recognized by all hams in Central Indiana!



The Spark
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Class for weather spotters

Would you like to be an official weather spotter? Here's your chance! On Friday, April 8th a class will be conducted in Franklin by an official from the National Weather Service.

The class will be held at 7 PM in our regular meeting room of the EOC. All amateurs successfully completing the two hour course will be officially certified.

Let's try to get a large number of MARC members trained for this important service! For more info you can contact Bob WB5VZT.

Area amateur earns honor

Lynn Wilhelm KB9GVW, (sister of Bernnie Heffernan KB9AWS) was recently named Teacher of the Year by the Johnson County Soil and Water Conservation District. She received the honor for her work with the school's outdoor laboratory.

Lynn is a member of the Johnson County RACES and during the flood last November served as liason between the amateurs and the Red Cross headquarters.

Congratulations, Lynn! We are proud of you!

Silent Key

Cornelius M. Head
WB9ZQE

We are sorry to report that an honorary member of the Mid-State Amateur Radio Club passed away in mid-March.

Mike provided help and guidance to the club during the time Mid-State was being organized and was made an Honorary member several years ago. He will be missed by the central Indiana ham community!

Antenna solution

Kathy, one of my wife's co-workers, and her husband Randy received their Tech Plus licenses and wanted to operate. But they live in Irvine, California—the epitome of everything California bashers love to deride. Among other problems, the town has severe antenna restrictions and prohibitions.

I drove down the Santa Anna Freeway to this community of cookie-cutter houses. A quick inspection revealed no tree substantial enough to hold or hide any type of antenna. It was an impossible situation, right?

Wrong! And this is the story of what we did to get those folks QRV from their hometown, despite the restrictions.

VHF was easy—a “Ventenna.” We painted the RG-8X tan to match the roof, and ran it through the attic vent into the shack. The only drawback is that the one vent limits them to one antenna, so they can't run voice and packet simultaneously.

HF was more of a challenge, but our solution might help the aerially deprived in your area as well. We scanned the L.A. Times classifieds for a “car”—but not for transportation. And for \$400 they picked up a '75 Dodge Dart I can best describe as animated rust. But it ran, and Randy parked (abandoned?) it in their driveway.

Working at night to avoid the anti-antenna Nazis, Randy drilled a hole through his home's

outside wall. We ran RG-8X through and out to the Dart, burying it a few inches below ground. It was easy to poke up through the rust and on to the antenna. Atop a car a “Hamstick” injects RF into the ether quite well!

Oh yes, they have to keep the Dart's tags current, and drive it occasionally to charge the battery and for maintenance. I'll admit these are desperate measures, and I wouldn't recommend them unless nothing else works.

If your situation is similar, though, consider using a mag-mount on your regular car, detaching it when you drive away.

from the “Cochise ARA Smoke”—Dale Green, K7RDG editor.

More about Morse

by Bob Morris, W2LV

Don Stoner, W6TNS, thinks Morse telegraphy will not long remain a requirement for Amateur Radio operation in the high frequency bands. He expects the next international radio conference to drop it.

He may be correct. The use of packet has been building rapidly, and the codeless technician license has become popular. The U.S. Coast Guard discontinued its CW watch on the 600 meter marine-distress frequency, and much of the radiotelegraph traffic on the medium frequencies has gone to other modes. So radio Amateurs are among the few still using this time-honored system of communication.

I hope Don Stoner is wrong. Morse has advantages, especially for Amateurs. And Morse is fun. Some people, such as the members of the Morse Telegraph Club, keep the old landline telegraphy code, American Morse, on the air—even though that code has been out of commercial service for many years!

Morse code is the simplest and least expensive method of modulating a radio transmitter. It is also one of the most efficient methods of transmission in terms of bandwidth requirements. And, as far as I know, Morse is the only method—other than voice—of sending and receiving without benefit of machines! Where simple, easily repaired equipment is a must, these advantages can be compelling. That is one reason the marine and Amateur services have continued to use Morse despite the development of computerized messaging, and why Morse will continue to find at least limited use for a long time.

Morse telegraphy has other advantages. Two years ago, when I was recovering from an operation, a nurse said I wouldn't be able to talk. When I tried, she proved correct. So, when my grandson arrived, I sent him Morse symbols by finger pressure on his hand. He caught on immediately, and I was able to communicate through him with his mother and grandmother!

That we could communicate without talking amazed and fascinated the nurses. Such possibilities are another reason to keep Morse code alive, by continuing to use it!

from the October '93 NJDXA Newsletter

How electricity works

Most electricity is manufactured in power stations, where it is fed into wires that are then wound around large drums. But some electricity does not need wires: that used in lightning, for example, and in portable radios. This kind of electricity is not generated, but is lying about in the air.

Electricity makes a low, humming noise that devices pitch at various levels for doorbells, auto horns, and electric organs.

Electricity must be grounded. That is, you must give it a path to the ground or it won't function,

except in airplanes, which have separate arrangements.

Electricity does not leak from an empty light socket, but it will come out if you insert your finger when the switch is on.

Electricity comprises two ingredients: negative and positive. Each part travels along a wire covered with black plastic. When the two wires meet in a plug, the ingredients mix to form electricity. You can store electricity in batteries. Big batteries do not always hold more than small batteries. In big batteries the electricity is just shoveled in, while in small batteries it is packed flat.

Incurious people take all this for

granted. They press a switch and see the light and that is all they know about the miracle in their homes. But I must know how things work. If I cannot find out from technical books, I combine such information as I already have with simple logic.

Thus I deduced that the light switch contains a clamp that pinches the wire closed. When the switch is on, the vise relaxes and the electricity flows to the light bulb, where a bit of wire, the element, is left bare so we can see the electricity, in the form of a spark. The curved magnifying-glass shape of the bulb magnifies the spark many times.

by Keith Waterhouse (British Novelist)



Dave KF9SZ and Bill KA9ZMU prepare for the class



Class members check their books during the break.



Dave KA9OOH and Bob WB9AYB discuss early days.



Our oldest member Homer WB9OZZ talks of club.

A user's guide to repeaters

This concludes the article by the Tri-State Wide Area Repeater System.

Courtesy.....

Repeater courtesy is very important. Since many of us enjoy the use of repeaters daily, and many of us have to share a repeater, courtesy is a must. Probably the most courteous thing to do on a repeater is to wait until a conversation that is currently on a repeater is over before making a call.

Unless you have an answer to a question someone is pondering, you have an emergency, or you've waited for several minutes and you must call someone immediately, don't interrupt the conversation. It is very courteous to break in, make your call, and then move off the repeater as soon as possible. If you are in simplex range, try not to tie up the repeater; use simplex.

If a repeater is busy, make your call and then move to a repeater that is not busy. But, by all means if you have an emergency, don't hesitate to break in. The Amateur Service is designed for emergency communications. Anytime life or property is in danger, don't be afraid to break in!

Another very courteous thing to do is to wait until the courtesy tone sounds before talking. People who are "quick on the trigger" may not leave enough room for someone to break in, and also do not allow the repeater timer to reset.

Below are some DOs and DON'Ts based on an article in the June 1992 issue of QST. While these are not laws, they are wonderful aids to keeping people on repeaters as friends.

DOs: Speak clearly. Give your radio a second to come on after you key your mike as well as a second to turn off. You may cut yourself off by not waiting for your radio to respond. This is also critical when using linked repeaters because the repeater may take a second or two to key on.

If you hear a jammer, **IGNORE HIM!** Comments toward jammers simply add fuel to the fire. Just try to bear with it and keep on talking as if you couldn't even hear the jammer.

Be sure to identify every ten minutes! This is not a courtesy, but an FCC rule! It is a courtesy, however, to not over-identify. Don't ID every time you key the mike.

Ask for a signal report when you are hand-held or a long distance away from the repeater. If you're weak, you may want to wait until you're closer to a repeater receiver.

Always be friendly and courteous! Remember that there are other hams (and non-hams) listening!

When in a group discussion, it is courteous to list the callsigns currently in the conversation before you ID. The person to talk next is always listed first. For example, you are finishing your transmission and it is N9ZZZ's turn to talk, and K9XXX just talked before you did. So, you would say, "N9ZZZ and K9XXX, this is AA9ZZ." For larger

groups, "N9ZZZ and the group" will work. By listing the people in the conversation, others will be reminded not to forget the other people waiting to add something to the conversation. This also keeps the person who's been waiting for several minutes to talk happy because he knows he's not forgotten.

DO support the repeater you use! Repeaters are not cheap.

DO say "clear" after you are done calling someone that was not on frequency or when you are finished with a conversation. This informs others waiting to use the repeater that you're done!

DON'Ts

Don't use CW radio jargon. Q signals and the like are seldom used on phone on VHF and UHF. Simply talk as if you were using the telephone. The best way to realize this is to listen to experienced hams.

Don't break into a QSO unless you have emergency or priority traffic or something valuable to add to the conversation.

Don't use the repeater to shoot the breeze with a local station during times of high repeater activity. Use simplex when possible. If you do shoot the breeze with a distant station, be sure to leave room for people to break in who may also need the use of the repeater.

Don't use excessive mike gain. Distorted audio is very annoying!

Our thanks to Charlie Sears N9MEW for contributing this article.